

Application for United States

The specification of which

(check

one)



PATENT B10-26025US

## **DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

\_is attached hereto

Application Serial No. 09/638,637

X was filed on

and was amended on

My residence, post office address and citizenship are as stated below next to my name;

August 14, 2000

(if applicable)

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

## PULSED WRITE TECHNIQUES FOR MAGNETO-RESISTIVE MEMORIES

I hereby state specification, including	e that I have reviewed the claims, as amended by	and understand the con any amendment referred to	tents of the a above.	ıbove-ider	ntified
	e the duty to disclose infice with Title 37, Code of Fe			nination o	of this
application(s) for pater	foreign priority benefits to inventor's certificate have	listed below and have also	identified bel	ow any fo	oreign
Prior Foreign Application	on(s)		Pric	orityClaim	eđ
(Number)	(Country)	(Day/Month/Year	Filed)	Yes	No
application(s) listed bel disclosed in the prior U United States Code §11 Code of Federal Regula	on the benefit under Title ow and, insofar as the subjunited States application in 2, I acknowledge the duty ations §1.56(a) which occurnational filing date of this	ect matter of each of the c the manner provided by t to disclose material infor arred between the filing da	laims of this ap he first paragra mation as defin	oplication aph of Titi ned in Titi	is not le 35, le 37,
(Application Serial No.	) (Filing D	ate)		ented, per andoned)	ıding,
I hereby appo transact all business in	int the following attorney the Patent and Trademark	(s) and/or agent(s) to properties.  Office connected therewith	secute this app	lication a	nd to (Reg.

No. 42,554) JOHN G. SHUDY, JR. (Reg. No. 31,214), IAN D. MACKINNON (Reg. No. 34,660).

Address all telephone calls to KRIS T. FREDRICK at telephone number (612) 951-6029.

Address all correspondence to Kris T, Fredrick, Customer Number 000128



COPY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

or First Inventor	Richard W. Swanson			
Inventor's Signature	Date .	<i>I-7</i> , 200/		
Residence Zimmerman, Sherburne County, Minnesota				
Citizenship USA				
Post Office Address				
Full Name of Sole or First Inventor	William J, Johnson			
Inventor's Signature	• • • () / 1 /	4-29,2001		
Residence				
Citizenship	USA			
Post Office Address	21 Wayside Road			
	Hopkins, MN 55343			
Full Name of Sole or First Inventor	Theodore Zha			
Inventor's Signature	$A \cap A$	4/20,200]		
Residence	· /	·		
Citizenship	USA			
Post Office Address	6257 Quantico Lane			
-	Maple Grove, MN 55311			
Full Name of Sole or First Inventor	Anthony S. Arrott  Date	4/20 2021		
Inventor's Signature				
Residence	•			
Citizenship				
Post Office Address				
	Washington, D.C. 20008			
	•			

\*Title 37, Code of Federal Regulations §1.56:

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim



is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
  - (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
  - (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

Page 3 of 3



**PATENT** 

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	MICRON TECHNOLOGY, INC.	)
App. No.	:	listed below	)
Filed	:	listed below	)
For	:	listed below	)
Examiner	:	Unknown ·	)

# ESTABLISHMENT OF RIGHT OF ASSIGNEE TO TAKE ACTION AND REVOCATION AND POWER OF ATTORNEY

United States Patent and Trademark Office P.O. Box 2327 Arlington, VA 22202

### Dear Sir:

The undersigned is empowered to act on behalf of the assignee below (the "Assignee") for the cases listed below. The original Assignment from Honeywell, Inc. to Micron Technology, Inc. is recorded at Reel 012188 and Frame 0697, and each of the listed cases was previously assigned of record to Honeywell, Inc.:

- ajgir Kiti	Our Rockton	Title II.	Patent/No.	- Assignment
				aRed/Draine :
09/318,073	MICRON.196CP1	Local Shielding For Memory	PENDING	009993/0887
		Cells		
09/618,237	MICRON.211A	Magneto-Resistive Memory	PENDING	011267/0257
		Array		
09/618,256	MICRON.210A	Magneto-Resistive Memory	PENDING	011430/0400
		Having Sense Amplifier With		
		Offset Control		
09/618,492	MICRON.212A	Memory Redundancy With	PENDING	011377/0194
		Programmable Non-Volatile		
		Control		
09/618,504	MICRON.198A	MRAM Architectures For	PENDING	012188/0697
		Increased Write Selectivity		
09/638,415	MICRON.213A	Magneto-Resistive Memory	PENDING	011189/0647
		With Shared Wordline And		

App. No. Filed

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listed below



		Sense Line	•	<u> </u>
Aynu No	OUTROUND		(Bottant Ros)	
09/638,419	MICRON.214A	Passivated Magneto-Resistive	PENDING	011287/0078
		Bit Structure And Passivation		
		Method Therefor		
09/638,637	MICRON.215A	Pulsed Write Techniques For	PENDING	011262/0993
		Magneto-Resistive Memories	<u> </u>	
09/668,922	MICRON.216A	Shielding Arrangement To	PENDING	011199/0931
		Protect A Circuit From Stray		·
		Magnetic Fields		
08/962,512	MICRON.197A	Shielded Package For Magnetic	5,939,772	9147/0852
		Devices		
08/993,009	MICRON.196A	Self-Aligned Wordline Keeper	5,956,267	8940/0969
	· .	And Method Of Manufacture		·
00/060 510	A COR COVERNO	Therefor		
08/962,518	MICRON.208A	MRAM Design To Reduce	5,982,658	9066/0083
	,	Dissimilar Nearest Neighbor		
09/040 597	MCDONIOGA	Effects	6 000 040	77/4
08/940,587	MICRON.207A	Method To Permit High	6,027,948	N/A
		Temperature Assembly		
		Processes For Magnetically Sensitive Devices		
08/993,005	MICRON.209A	Method Of Manufacturing A	6,048,739	8940/0979
00/223,003	MICKON.207A	High Density Magnetic	0,048,739	0340/0373
· -		Memory Device		
09/365,308	MICRON.206A	Method And Apparatus For	6,134,138	010147/0942
, , , , , , , , , , , , , , , , , , , ,		Reading A Magneto-Resistive		01014770542
		Memory		
09/396,189	MICRON.185DV1	Non-Volatile Storage Latch	6,147,922	9115/0907
09/429/664	MICRON.185CP1	Non-Volatile Storage Latch	6,175,525	010353/0253
09/455,850	MICRON.199A	Method And Apparatus For	6,178,111	010477/0485
	·	Writing Data States To Non-		·
		Volatile Storage Devices		
09/059,871	MICRON.185A	Non-Volatile Storage Latch	6,269,027	9115/0907
06/879,679	MICRON.189A	Magneto-Resistive Memory	4,731,757	4574/0767
		Including Think Film Storage	·	
		Cells Having Tapered Ends		
06/908,075	MICRON.187A	Differential Arrangement	4,751,677	4604/0016
		Magnetic Memory Cell		
07/008,211	MICRON.195A	Vialess Shorting Bars For	4,754,431	4664/0251
		Magneto-Resistive Devices		
06/870,068	MICRON.188A	Magneto-Resistive Memory	4,780,848	4559/0920
		With Multi-Layer Storage Cells		
		Having Layer Of Limited		

App. No.

Filed

:

listed below



		Thickness		
App. No.	Om Rei So	Timle .	Patentino.	Assignment Reconstants
07/078,612	MICRON.186A	Differential Magneto-Resistive Memory Sensing	4,829,476	4748/0535
07/168,293	MICRON.192DV1 MICRON.195DV1	Vialess Shorting Bars For Magneto-Resistive Devices	4,897,288	4664/0251
07/161,534	MICRON.194A	Magnetic Device Integrated Circuit Interconnection System	4,918,655	4838/0775
07/404,003	MICRON.203FW1	Semiconductor Device Housing With Magnetic Field Protection	4,953,002	4896/0504
07/504,777	MICRON.191A	Opposed Field Magneto- Resistive Memory Sensing	5,012,444	5269/0357
07/505,090	MICRON.190A	Magnetic State Entry Assurance	5,060,193	5275/0230
07/507,682	MICRON.193A	Inductively Sensed Magnetic Memory	5,064,499	5283/0794
08/061,603	MICRON.202A	Sense Amplifier Input Stage For Single Array Memory	5,349,302	6564/0073
08/365,852	MICRON.204A	Highly Producible Magneto- Resistive RAM Process	5,496,759	7300/0805
08/576,279	MICRON.205A	Integrated Spacer For Magneto- Resistive RAM	5,569,617	7822/0914
08/576,732	MICRON.200A	Magnetic Hardening Of Bit Edges Of Magneto-Resistive RAM	5,756,366	7807/0166

The original assignment from Honeywell, Inc. to Micron Technology, Inc. is recorded at Reel 012188 and Frame 0697. These assignments represents the entire chain of title of these inventions from the Inventors to the Assignee.

I declare that all statements made herein are true, and that all statements made upon information and belief are believed to be true, and further, that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that willful, false statements may jeopardize the validity of the application, or any patent issuing thereon.

The undersigned hereby revokes any previous powers of attorney in the subject application, and hereby appoints the registrants of Knobbe, Martens, Olson & Bear, LLP, 620 Newport Center Drive, Sixteenth Floor, Newport Beach, California 92660, Telephone (949) 760-0404, Customer No. 20,995, and Michael L. Lynch, Reg. No. 30,871, Micron Technology, Inc., 8000 South Federal Way, P.O. Box 6, Boise, ID 83707-0006, as its attorneys

App. No.

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listed below

with full power of substitution and revocation to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected herewith. This appointment is to be to the exclusion of the inventor(s) and his attorney(s) in accordance with the provisions of 37 C.F.R. § 3.71.

Please use Customer No. 20,995 for all communications.

MICRON TECHNOLOGY. INC.

Dated: February 28, 2002

Roderic Lewis

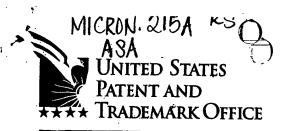
Vice President of Legal Affairs,
Title: General Counsel and Corporate Secretary

Address: 8000 South Federal Way

P.O. Box 6

Boise, ID 83707-0006

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SEPTEMBER 25, 2002

**PTAS** 

KNOBBE, MARTENS, OLSON & BEAR LLP ADEEL S. AKHTAR SIXTEENTH FLOOR 620 NEWPORT CENTER DRIVE NEWPORT BEACH, CA 92660 Under Secretary of Commerce For Intellectual Property and Director of the United States Patent and Trademark Office Washington, DC 20231 www.uspto.gov



\*102170832A\*

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 07/24/2002

REEL/FRAME: 013118/0001

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ARROTT, ANTHONY S.

DOC DATE: 07/18/2002

ASSIGNEE:

MICRON TECHNOLOGY, INC. 8000 SOUTH FEDERAL WAY BOISE, IDAHO 83707-0006

SERIAL NUMBER: 09638637

PATENT NUMBER:

FILING DATE: 08/14/2000

ISSUE DATE:

SHARON LATIMER, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

**BEST AVAILABLE COPY** 







### TO THE ASSISTANT COMMISSIONER FOI

Name of conveying party(ies): (If multiple assignors, list

102170832

documents or copy thereof.

1. Name of conveying party(ies): (If multiple assignors, list numerically)	2. Name and address of receiving party(ies):		
Anthony S. Arrott	Name: Micron Technology, Inc. Internal Address:		
Additional name(s) of conveying party(ies) attached?  ( ) Yes (X) No	Street Address: 8000 South Federal Way City: Boise State: Idaho ZIP: 83707-0006		
	Additional name(s) of receiving party(ies) attached?  () Yes (X) No		
3. Nature of conveyance:	4. Application number(s) or Patent number(s):		
(x) Assignment () Merger	() Application(s) filed herewith Execution Date(s):		
() Security Agreement () Change of Name () Other:	(X) Patent Application No.: 09/638,637 Filing Date: August 14, 2000		
Execution Date: (If multiple assignors, list execution dates in numerical order corresponding to numbers indicated in	() Patent No.:  Issue Date:		
1 above) July 18, 2002	Additional numbers attached? () Yes (X) No		
<ol><li>Name and address of party to whom correspondence concerning document should be mailed:</li></ol>	7. Total fee (37 CFR 1.21(h)): \$40.00		
	(X) Enclosed		
Name: Adeel S. Akhtar KNOBBE, MARTENS, OLSON & BEAR, LLP Customer No. 20,995	O Authorized to be charged to deposit account		
Internal Address: Sixteenth Floor Street Address: 620 Newport Center Drive	8. Deposit account number: 11-1410		
City: Newport Beach State: CA ZIP: 92660 Attorney's Docket No.: MICRON.215A	Please charge this account for any additional fees which may be required, or credit any overpayment to this account.		
6. Total number of applications and patents involved: one (1)	OFFICE OF PUBLIC TINZ JIL 24 M FINANCE SE		
9. Statement and signature.	FINANCE		
	ormation is true and correct, and any attached copy is a true copy of the		
Adeel S. Akhtar Odash Ay	July A, ZOOS & SE		
Name of Person Signing Signature	Date		
41,394 Registration No.			

Mail documents to be recorded with required cover sheet information to:

Total number of pages including cover sheet, attachments and document: 3

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U.S. Patent and Trademark Office Attn: Assignment Division

Arlington, VA 22202

1213 Jefferson Davis Highway, Suite 320 FST AVAILABLE COPY



Application No.: 09/638,637 Filing Date: August 14, 2000



PATENT Client Code: MICRON.215A

Page 1

#### **ASSIGNMENT**

WHEREAS, I, Anthony S. Arrott, a citizen of the United States of America, residing at 5026 Reno Road, Washington, DC 20008, have invented certain new and useful improvements in a PULSED WRITE TECHNIQUES FOR MAGNETO-RESISTIVE MEMORIES for which an application for Letters Patent in the United States, Application No. 09/638,637 was filed on August 14, 2000;

AND WHEREAS, Micron Technology, Inc., (hereinaster "ASSIGNEE"), a Delaware Corporation, with its principal place of business at 8000 South Federal Way, Boise, Idaho 83707-0006, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application:

I must point out that the above Letters Patent application was filed without my knowledge. It pertains to a discovery that I made after no longer being paid by Motorola, but using their facilities in September 1998. Possibly it should be considered public domain. The patent application is based on designs later developed while I was under contract to Honeywell, Inc, but firmly based on that previous discovery.

Nevertheless, in return for good and valuable consideration, the receipt of which is hereby acknowledged, I, the said inventor, to the extent that the patent should not properly be considered to be public domain, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional applications relating thereto, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument, again to the extent that the patent should not properly be considered to be public domain.

Nevertheless, I HEREBY covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 18th day of July, 2002.

Anthony S. Arrott

On July 18, 2002, before me, Attila Kakay, Anthony S. Arrott, personally known to me, executed the instrument.

REST AVAILABLE COPY

Kakon Attila